

## JUSTIFICATION FOR SOLE SOURCE/BRAND NAME SOLE SOURCE <\$150K

PLEASE FILL IN ALL APPLICABLE BLOCKS BELOW.  
A NARRATIVE MUST BE ADDED TO ALL APPLICABLE SECTIONS.

<b>PO Number:</b>		
The effort listed on this form is for: <u>(please mark one)</u> :	<input checked="" type="checkbox"/> Supply	<input type="checkbox"/> Service
The material and/or service listed on this form is <u>(please mark one)</u> :	<input checked="" type="checkbox"/> Sole Source	<input type="checkbox"/> Brand Name

**Restricted to the following source or manufacturer:**

- Manufacturer/Source: Teledyne-Benthos
- POC and Phone Number: [REDACTED]
- Address: 49 Edgerton Dr, North Falmouth, MA 02556

**Description of the item(s) or service(s) required and the estimated cost(s):**

Item#	MFG Name	MFG Part#	Description	Qty	U/I	Unit Price	Ext Price
1	Teledyne-Benthos	DAT-903-LF5	Low Frequency OEM DAT board set with remote transducer. Right angle connector on back end of Transducer.	1	ea	[REDACTED]	[REDACTED]

\*\*\* If additional items are required, please provide on a separate spreadsheet

1. List the Required Delivery Date (RDD) or Period of Performance (POP):

RDD = 6/15/2016

\*\*\* If additional space is required, please attach a continuation sheet.

2. Specify characteristics of the material or service that limit the availability to a sole source/brand product (unique features, function of the item, etc.). Describe in detail why only this source/brand can furnish the requirements to the exclusion of other sources/brands.

The assumptions were made that the acquired underwater acoustic modem would need to fit a particular form factor for the platform on which they will be installed, and that the power consumption and data streaming would be compatible with the existing platform architecture. A search of potential modems was conducted through vendor websites, and an evaluation of sensor performance, reliability, and modularity of sensor design was considered. Communication with other researchers who have experience with sensors of this type also provided useful information. At this time, there are no other vendors with acoustic modems that meet the combination of requirements for integration into the existing platforms.

3. Indicate if the requested material or service represents the minimum requirements of the Government.

This product meets the minimum requirements of the government.

4. Indicate if the material or service must be compatible in all aspects (form, fit, and function) with existing systems presently installed/performing. Describe the equipment/function you have now and how the new item/service must coordinate, connect or interface with the existing system.

Yes, the modem must fit within the form factor of the existing modem on the Wave Glider tow body, and must operate using the same power and data streaming requirements. They must also be able to communicate with the other modems already being utilized on the other systems.

5. Does a patent, copyright or proprietary data limit competition?

Yes, the modems use proprietary software to communicate with each other.

\*\*\* If additional space is required, please attach a continuation sheet.

6. Are the items "direct replacement" parts/components for existing equipment? If so, provide the information about the Next Higher Assembly (NHA)/equipment which the replacement parts are going into (e.g., description, model, part number, Original Equipment Manufacturer (OEM), etc.).

The Liquid Robotics Wave Glider systems have tow-bodies designed for the ATM-900 series modems. In order for this project to proceed, the procurement of a new, advanced Teledyne-Benthos DAT-903-LF series underwater acoustic modem is required for integration into a Wave Glider tow-body. This would serve as an upgrade to the existing hardware. The Wave Glider tow-body is by Liquid Robotics, Inc, product code LR-1134.

7. Provide any additional information to support a sole source/brand name sole source procurement. The rationale must justify "either" substantial duplication of cost to the Government that is not recovered through competition or unacceptable delays in fulfilling the mission of the agency.

If another acoustic modem from a competitor were to be obtained, the existing data acquisition system, power management system, and hardware mounting system would all need to be redesigned and adapted. In addition, other acoustic modems on other platforms would need to be replaced to be compatible. The hardware and software systems for the underwater acoustic networking technologies being utilized in this project are required to be compatible with other, existing systems being utilized in this project. There are only a few companies in the country that manufacture underwater acoustic modems. Each of these uses proprietary modem and signaling technologies, and do not work with systems from other manufacturers.

\*\*\* If additional space is required, please attach a continuation sheet.

**TECHNICAL OR REQUIREMENTS CERTIFICATION**

I CERTIFY THAT THE STATEMENTS CHECKED, AND INFORMATION PROVIDED ABOVE ARE COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND THAT THE PROCESSING OF THIS SOLE SOURCE/BRAND NAME SOLE SOURCE JUSTIFICATION PRECLUDES THE USE OF FULL AND OPEN COMPETITION.

Printed Name: [REDACTED]	Signature: [REDACTED]
Title: Professor of Physics	Date: 10 May 2016

**CONTRACTING OFFICER APPROVAL:**

Printed Name: [REDACTED]	Signature: [REDACTED]
Title: Deputy Director of Contracting/Contracting Officer	Date: 11 MAY 16